

Distinctive Characteristics of FRTEP Extension Programs on Five Indian Reservations in Arizona and New Mexico

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Abstract:

Extension services to Native American reservations have been sporadic or nonexistent since the United States federal government established the reservations in the late 19th century. The Bureau of Indian Affairs provided extension services to some reservations, beginning with the “boss farmers” of the past, and then modern extension agents, who gave technical assistance to the tribes until the 1980s; county extension offices have also offered limited services. In 1991, with petitions from several intertribal organizations, the U.S. Department of Agriculture CSREES (Cooperative State Research and Education Extension Service) formed the Extension Indian Reservation Program, now called the Federally Recognized Tribal Extension Program (FRTEP). Native American tribes have unique cultural, geographic, and historical differences from other extension clientele, and each tribe is distinctive. This paper will explore how the culture, history, and geography have affected extension delivery methods and programming on five Indian Reservations in the FRTEP program: the Navajo Nation, the San Carlos Apache Tribe, the Colorado Indian River Tribes, the Hopi Tribe, and the Hualapai Tribe, including an explanation of effective delivery methods on the five reservations and the elements that make Indian Country extension projects and programs successful.

Key words: Native American, Indian reservations, delivery methods, extension partnerships, cultural learning styles

Introduction

Support for extension on American Indian reservations has often been sporadic or even nonexistent since the U. S. government established the reservations in the late 19th century, which confined many Native American populations to specific land areas which were much more limited than their aboriginal territories. The original establishment of extension on the reservations began as early as 1892, with the “boss farmers” who gave technical assistance in agriculture and ranching. In the mid-1950s, the Bureau of Indian Affairs (BIA) began to provide extension services on some reservations. However, by the middle of the 1980s, such programs no longer existed (Hiller, 2005).

Therefore, intertribal organizations, including the Intertribal Agriculture Council, the Southwest Indian Agriculture Association, and the Intertribal Council of Arizona, petitioned Congress and federal agencies to create support for extension programs on the reservations. The ensuing legislation, part of the 1991 Farm Bill (Food, Agriculture Conservation and Trade Act), authorized the Extension Indian Reservation Program (EIRP), which included 28 projects on 27 reservations in 15 states (Hiller, 2005). The EIRP, which is now called the Federally Recognized Tribal Extension Program (FRTEP), is administered through the 1862 Land Grant Colleges. With University of Arizona Cooperative Extension, it consists of six reservation extension offices in Arizona and New Mexico, on the following reservations: the Navajo Nation, the San Carlos Apache Tribe, the Hopi Tribe, the Colorado River Indian Tribes, and the Hualapai Tribe. Each of these reservations has its own distinct culture, history and language; therefore extension agents and tribal advisory committees work together to create diverse, unique extension programs and projects.

Purpose and Objectives

To explore the different cultural, historical, and geographic characteristics of the five reservations in the University of Arizona FRTEP program, and to describe successful extension programs and community collaborations on the reservations.

Data Sources

Data sources consist of federal governmental documents, including the U.S. Census Bureau (2000), Bureau of Indian Affairs (2007); tribal organizations documents such as the Inter Tribal Council of Arizona (ITCA, 2002), tribal government documents from each of the five reservations, and various Internet sources (Wikipedia, 2007; U.S. Census Bureau Fact Finder, 2007). Another source includes the Annual Performance Reports (APR) from (2003-2006) for each of the six reservation extension agents working with the University of Arizona Cooperative Extension. The first author of this paper also sent a one question email questionnaire to the University of Arizona Indian Country Extension Working Group, a committee of 18 members.

Extension personnel focus on cultural as well as individual learning styles when working with Native American community members. Learning styles may be associated with particular cultures, but this connection is not clearly correlated or defined, because individuals among cultures vary in learning style and personality (Hilburn, 2000). Learning style differences within cultures exist, and there is also an overlap among cultures. A.J. Moore (1993) claims that among the Gitskan Indians of British Columbia, culture influences learning processes, strategies and styles that students employ. A.J. Moore analyzed learning styles in this culture as to whether Native American students are primarily global (holistic) or analytic; verbal or imaginal; and reflective or trial and error/feedback. The trial and error/feedback (TEF) strategy involves

students asking questions and receiving feedback to their responses, while reflective learners ponder at length before answering. A.J. Moore mentions that Western culture in general has a paucity of imagery and learners from this culture often exhibit analytic, verbal, auditory and TEF styles. Native Americans are generally global, imaginal, reflective, and concrete learners; this profile is stronger among more traditional, isolated individuals of the tribe, although there are also variations from tribe to tribe. Native American students tend to learn from their mother, father, grandparents and close family friends and then from their teachers as they grow older. These Native American learning style profiles originate from the cultural tendency for individuals to listen without interrupting and to use symbolic language in their mythology. Instructors of Native American learners should use images in their teaching, repeated practice of techniques to encourage success, use cooperative learning and discussion, employ an introduction and overview before presenting specific examples, and utilize Native American paraprofessionals when possible (A.J. Moore, 1993).

Tuttle (2003) also stated that a Native American educational philosophy views the world in a holistic manner—the Native American child reacts and interacts with the entire world, and does not perceive of the world as separate parts. Tuttle also implied that Native American children may not perform well with trial and error feedback educational activities because some Native American tribes teach their children that they should not attempt to do something until they can do it properly the first time. He claimed that more experiential, interactive, and indirect methods of instruction may work better with Native American children.

Ross (2002) stated that Native Americans utilize the right brain to a greater extent than the left brain, and that “right brain instinctively sees the whole, then the parts (p.1).” He also reported that traditional Indian instruction occurs by precept and example, or discovery learning, and that traditional Indian education is a function of the right brain. Right brain cognition processes symbols better than words. Ross mentions that when Native Americans tell their children stories, the children use the right brain wave pattern when they listen to the stories.

Vicenti-Henio and Torres (1998) maintained that Native American learners prefer visual, perceptual, and spacial information rather than verbal means of communication; use mental images to retain or comprehend words and concepts rather than word associations, with global processing favored. Simultaneous processing is high in this culture, while sequential processing develops more slowly. They also demonstrate more watch-then-do behavior than trial and error. Learning style differences due to Native American culture may be due to cultural and early socialization experiences—of a quiet nature, being silent at home and in the community, and learning through non-verbal ways, such as by observing. Traditionalism also affects these tendencies. However, Vicente-Henio and Torres found that Navajo high school agriculture students were primarily field independent, which would seem to contrast with the literature. Yet the majority of the students were male enrollees in agriculture, who would tend toward field independence, which could explain this discrepancy. Field independent learners enjoy problem solving and discovering the underlying organization to apply knowledge to circumstances; they thrive on discovery learning and inquiry. Field dependent learners use signals from their environment, need clear structure and organization, incorporate their social network into learning, and require guidance and support; they enjoy group work (Whyte, Karolick, & Taylor, 1996). However, Vicente-Henio and Torres (1998) also discovered that less traditional students were more field independent, as were those that did not spend time with their grandparents.

Results, Products, and Conclusions

The five reservations are among the largest in Indian Country and feature ecologically diverse lands. The Navajo Nation, the Hopi, and the Hualapai reservations extend across large swaths of northern Arizona; most areas have an elevation of 5000 feet or more and consist of high desert scrub and grasslands, pine and juniper woodlands, and river canyons. The San Carlos Apache Reservation ranges from 2,500 feet to over 7,000 feet and includes Sonoran desert, high desert, juniper, pine, spruce, and fir woodlands. The reservation of the Colorado River Indian Tribes (C.R.I.T.) runs along the low desert and riverine communities on both sides of the Colorado River at an elevation of approximately 450 feet. The Navajo Reservation extends into Utah and New Mexico, while the C. R. I. T. Reservation extends into California. Both the Navajo Reservation and Hualapai Reservation feature “satellite” reservations that are not contiguous to the main reservations.

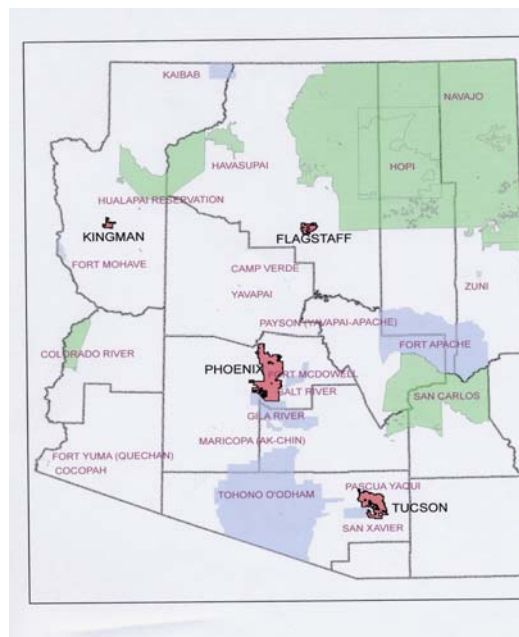


Figure 1. Indian Reservations in Arizona

Agricultural practices vary among the reservations due to climatic, cultural, and historical differences. All of the tribes except those at C.R.I.T. raise cattle through individual ownership, collective associations, or tribal government businesses. The C.R.I.T., San Carlos Apache Tribe, and Navajo Tribe use irrigation to farm various foods and hay. Hopis practice dry farming, a traditional technique they have used for at least 2,000 years. The practice of farming by the Hopi is not commercial but rather for cultural and traditional purposes. Having stayed within the ethnogeographical area, their agricultural and cultural practices are well suited to their environment. Many community members on each of the five reservations garden and/or gather food and medicinal plants. Timber is commercially harvested regularly on the San Carlos Reservation and less frequently on the Hualapai Reservation. (Wikipedia, 2007; BIA, 2007; ITCA, 2002). Common partners on extension programs on each of the reservations include the following: tribal, state, and county governments; non-profit organizations, 1994 Tribal Colleges, commodity groups, and families. Influences on extension programs include tradition and culture, politics, recreation, and health (G. Moore, 2007, Figure 2).

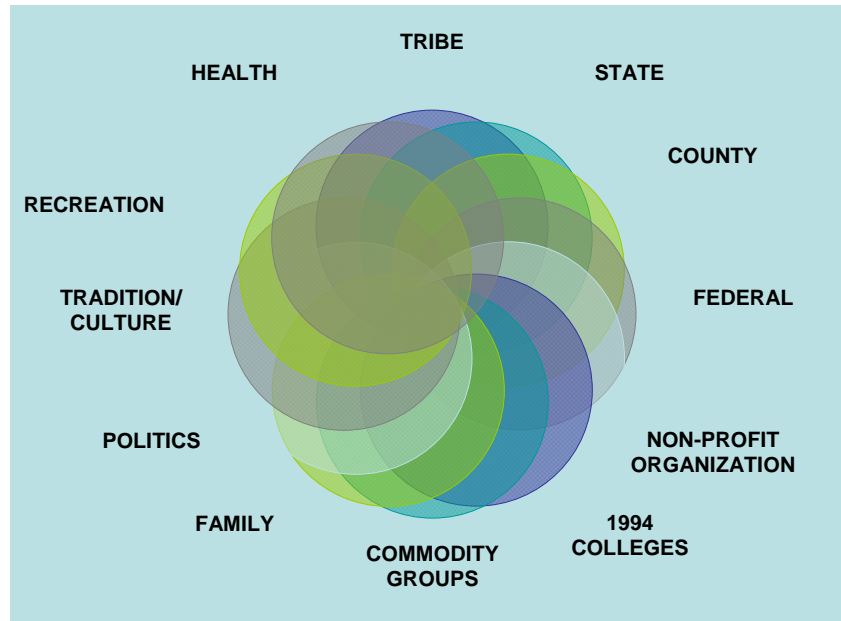


Figure 2. Common Partners and Influences on Indian Country Extension Programs on Five Reservations (Adapted from G. Moore, 2007).

Culture, geography, and history are also unique to each reservation, and greatly affect how extension programs are delivered, although some methods are commonly used on all reservations.

The U-shaped land called the Hualapai Reservation was established by Executive Order in 1883. It encompasses over 1,000,000 acres of land which is considerably less than the vast area the Tribal members previously had occupied. It is 70 miles west of Flagstaff, AZ. Cattle ranching and timber sales were once the main economic factors, but the main influences are now tourism, hunting, and small business of crafts. There are 1,353 tribal members (U.S. Census, 2000). The Hualapai language is the Native language.

The U.S. Government settled thirteen bands of Apache from various regions on the San Carlos Apache reservation in the 19th century. Many of the band, clan, and family networks exist today, and create a framework of communication and alliances which affect family life, politics, and administration of extension programs. Currently, the San Carlos reservation contains 1,853,841 million acres; almost the entire area is in lands held in trust by the U.S. federal government. The San Carlos reservation is 20 miles east of the town of Globe, and 100 miles east of metropolitan Phoenix. (Bureau of Indian Affairs, 2007). The total tribal enrollment includes 13,246 people, with the enrolled tribal membership in residence on the reservation at 10,709 people. There are three main communities, San Carlos (tribal governmental seat), Peridot, and Bylas. Peridot and San Carlos are on the western side of the reservation, and Bylas is on the extreme eastern side of the reservation. Median family income was below \$20,000 (U.S. Census, 2007). Unemployment rates are very high compared to the Arizona state average. The Apache people speak a southern Athabaskan language, closely related to the Navajo people's language, and 47 percent still speak Apache. (Wikipedia, 2007). The Apache language is often spoken during extension programs, in the discussion activities.

The Navajo Nation extends into the states of Utah, Arizona, New Mexico, enveloping over 27,000 square miles of marvelous beauty. Diné Bide' yah, or Navajoland, is larger than 10 of

the 50 states in America. Members of the Nation are often known as Navajo but customarily call themselves DINÉ which signifies People. There are no urban areas on the Navajo Nation, and most roads are unpaved. (U.S. Census, Navajo Division of Economic Development (NDED)), (2007). In the 2000 U.S. Census, 298,215 individuals declared Navajo ancestry or tribal association. Separated into 110 Chapters (similar to counties), the Navajo Nation is organized into five Agencies, or Tribal administrative districts. Kayenta is the only incorporated township. Most villages are groups of housing around schools, hospitals, trading posts, and chapter houses. (U.S. Census, 2000).

The Navajo Nation's 2000-2001 Comprehensive Economic Development Strategy states that the Nation's unemployment rate is 44 percent, the median family income is \$11,885, and the per capita income is \$6,217. It also states that 56 percent of Navajos live below the poverty level, the highest poverty rate in the U.S.

While these data seem to manifest poverty and desolation, Navajo people still have strong family bonds, clanships, land, and most experience a rich cultural, spiritual, and quotidian lifestyle sustained by small-scale farming and ranching. These human assets, including the traditional way of life, knowledge, values, and resources are the foundation of the Navajo people (DINÉ).

Within the Hopi Reservation, cultural, social, natural, and human capitals far out weigh financial, built and political capitals. In this case these are the strengths that extension education programs can best work with (C. Flora & M.Livingston, 2007, figure 3).

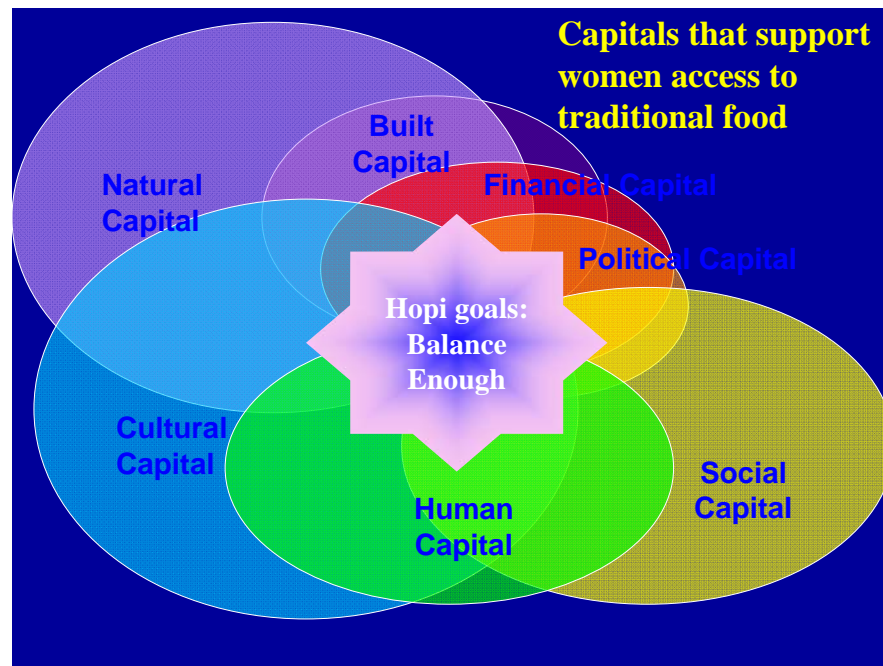


Figure 3. Community Capitals on the Hopi Reservation.

The Colorado River Indian Tribes (C.R.I.T.) Reservation includes almost 300,000 acres of land with 353 square miles in Arizona and 66.7 square miles California. It also includes 90 miles of river shoreline along the Colorado River. The Reservation holds substantial senior water rights in the Colorado River, which are used for irrigated farming. The C.R.I.T.

Reservation was chosen as the second Indian Reservation in Arizona and was established in 1865 for the “Indians of said River and its Tributaries” (Colorado River Indian Tribes, 2007, p.1). Initially, this included the Mohave, whose ties to the land date from prehistoric time and the Chemehuevi who, for generations, have also resided along the Colorado River from present-day Nevada south into Mexico. In 1945, a portion of the Reservation was reserved for colonization by Indians of other tribes, specifically the Hopis and Navajos. Today, the Colorado River Indian Tribes includes four distinct Tribes - the Mohave, Chemehuevi, Hopi and Navajo. Although the four Tribes who share the Colorado River Indian Reservation function today as one geo-political unit known as the Colorado River Indian Tribes, each continues to maintain and observe its individual traditions, distinct religions, and culturally unique identities. The 3,500 active tribal members speak various languages on the C.R.I.T. reservation. The *Mojave* language belongs to the River Yuman branch of the Yuman-Cochimí or Hokan linguistic family. It consists of about ten languages and various dialects, with speakers ranging from Baja California and northern Sonora in Mexico, to southern California and western Arizona in the USA. The *Chemehuevi* language is distinct from that of the other Colorado River Tribes.

The Colorado River serves as the focal point and lifeblood of the Reservation providing much needed water in an extremely arid environment for agriculture, recreation and tourism. CRIT has senior water rights to 717,000 acre feet of the Colorado River, which is almost one-third of the total allotment from the Colorado River for the state of Arizona. The water is diverted for irrigation use on farms throughout the Parker Valley. The primary economic activity on the CRIT Reservation has always been agriculture, going back to the days when mesquite trees were plentiful along the banks of the river and were relied upon for everything from food to cooking to tribal traditions and ceremonies. CRIT continues to have a strong farming and agricultural industry, including growing alfalfa, grains, cotton, seed crops, guayule (pronounced ‘why-YOU-lee’) and melons. Approximately 84,500 acres are now under cultivation and another 50,000 acres are available for development. A joint venture cotton gin is located on the reservation.

Successful extension methods include a wide range of educational methods (University of Arizona APRs, 2003-2006; Benally, personal communication, August 15, 2007; Long, personal communication, August 18, 2007; Crowley, personal communication, January 3, 2008) (Table 1):

Table 1

Indian Country Extension Programs with the University of Arizona FRTEP Program on Five Reservations

| Element of Educational Program | Examples | Reservation (s) where Methods are Employed for Extension Audiences |
|--|---|--|
| Subjects of Special Emphasis | <ul style="list-style-type: none"> ○ Record keeping, marketing, and business management for livestock, agriculture, and crafts ○ Traditional crafts ○ Identification of culturally significant plants ○ Starting small businesses | <ul style="list-style-type: none"> ○ All ○ Hopi ○ SC Apache, Hualapai ○ Hopi, Navajo, Hualapai |
| Activities of Special Emphasis | <ul style="list-style-type: none"> ○ Hands-on experiments ○ Workshops and short courses ○ Computer activities (using GIS and GPS technologies) ○ Focus group and roundtable discussions ○ On-farm/ranch demonstrations and field days ○ Teaching by elders ○ Interactive challenge games | <ul style="list-style-type: none"> ○ Hopi ○ All ○ SC Apache, CRIT, Navajo, ○ SC Apache, Navajo ○ All ○ All ○ CRIT |
| Audiences of Special Emphasis | <ul style="list-style-type: none"> ○ Youth ○ Livestock owners ○ Artisans and other people interested in small businesses | <ul style="list-style-type: none"> ○ All ○ All ○ All ○ Hopi, Navajo, Hualapai |
| Outreach Materials of Special Emphasis | <ul style="list-style-type: none"> ○ Customized videos/DVDs ○ Customized field guides | <ul style="list-style-type: none"> ○ Navajo ○ Hualapai |

As can be seen by Table 1, extension delivery methods on the reservations include hands-on and group oriented activities, such as experiments, field days and workshops, working with elders, focus groups, and round table discussion. They also offer times for participants to learn and practice new techniques, such as recordkeeping, plant identification, starting small businesses, and GIS/GPS computer based programs. More individual learning may take place in the customized videos/DVDs and customized field guides. These success of these extension activities concur with the Native American learning styles found by Tuttle (2003), Reed (2000), Vicente-Henio & Torres (1998), Whyte, Karolick, & Taylor (1996), and A.J. Moore (1993): that Native Americans are predominantly global, imaginal and field dependent learners, although activities such as interactive challenge games, GIS/GPS technologies, and customized videos/DVD and field guides allow for innovative discovery type learning for Native American field independent learners.

When asked to define the elements of successful extension programs in Indian Country Extension through an email survey to the Indian Country Extension Working group at the University of Arizona, the responses varied, but also had some similar elements. The response rate of the survey was 50%, with 9 out of 18 responding.

1. *Matt Livingston, Associate Agent, Hopi Reservation*

“My idea of success with projects in Indian Country, is that people I work with are able to do what I can do by themselves. Building capacity within the community is the important thing.” (Livingston, personal communication, December 17, 2007)

2. *Jonathan Long, formerly Assistant Agent with the Hualapai Reservation*

“A successful extension project is one that enhances the capacity of a community to cope with one or more problems through the application of scientific knowledge. Success should be evaluated across a multi-dimensional continuum that considers the extent, depth, and timeframe of the change in capacity relative to the level of available resources. In general, successful capacity-building projects are ones that:

- Relate to long-term community vision and goals.
- Consider the community as a whole (history, culture, and economic or socio-political influences).
- Build on community resources and skills.
- Match the scope and complexity of the project to the community’s resources.

These criteria are particularly important in Indian Country, since tribal communities have particularly distinctive goals, contexts, and resources.” (Long, personal communication, December 12, 2007; U.S. Environmental Protection Agency, Region 10. 1998; Etine, 1998)

3. *Jeannie Benally, Assistant Extension Agent, Navajo Nation-Shiprock, Navajo Nation Tribal Member*

“Successful programs in Indian country should be summarized as follows:

- Foundation principles are concepts you need to know before you start work on a project: Visualize, Plan, Implement and Close.
- A project is a complex series of nonroutine tasks directed to meet a specific goal. A process is a set of tasks repeated many times over.
- Success means meeting expectations.
- A successful project focuses on objectives and processes to meet those ends with minimal disruptions such as conflicting priorities; lack of vision; poor communication; not enough time; not enough resources; no buy-in; and changing priorities.
- Meaningful projects align with underlying organizational or personal mission, vision and values.
- You mentally plan and then physically create the results you need to
- get: Begin with the End in Mind!” (Benally, personal communication, December 4, 2007)

4. *Dr. Jim Sprinkle, Area Agent, Animal Science, and Gila County Director* “Successful programs utilize hands on, applied application of research based information in such a

way that proven concepts are integrated into the lives and cultures of clientele. Educational programs complement observational knowledge passed from generation to generation in such a way that the “wisdom of the elders” and scientific knowledge are enjoined together in a successful marriage of beliefs, attitudes, and mutual respect.” (Sprinkle, personal communication, December 12, 2007)

5. *Linda Masters, Assistant Agent, Colorado River Indian Tribes, and La Paz County Director*

“I measure how successful each program is through a series of steps. First I know that I have to get ‘buy-in’ from the Tribal Council, Tribal Department head or other specific Tribal leaders. Without their support, it is difficult to move forward with any proposed project. Next I hope to find good partners who are willing to commit to financial, material, or program support for the project. Volunteers and other partners really add flexibility and depth to workshops, presentations, and other educational opportunities. The third step is to have tribal members show up for workshops and participate in programs. Finally, positive feedback in the form of questionnaires or verbal surveys from participants tells us how participants have benefited from our program or how to improve them in the future. The successful completion of the above steps defines a successful program implementation.” (Masters, personal communication, December 17, 2007)

6. *Juanita Waits, Area Agent in Family/ Consumer Science and Navajo County Extension Director*

“A successful program in Indian Country is a program designed with the people, for the people, and by the people you are serving. It is very much a community development process of assessing the needs of the community and working with the community on planning and implementation of programs based on identified needs. An important aspect of a successful program takes in mind the community, the culture, and societal needs.” (Waits, personal communication, December 20, 2007)

7. *Dr. Sabrina Tuttle, Assistant Agent, San Carlos Apache Reservation and Assistant Professor, Department of Agricultural Education*

“Successful programs in Indian Country require many elements, but the foremost of these are cultural understanding, collaboration, and persistence. Extensionists must attain comprehension of how each tribal culture works, and what educational methods work best with each culture. Extension faculty and staff should collaborate with other extension professionals, tribal agency personnel, and community members to design, implement, and evaluate their programs. They must also persist in trying out innovative methods, to see which works best with each particular Tribe, and implicate traditional tribal methods of learning along with novel ideas and ways of teaching. Comprehending and establishing good communication channels with clientele and co-workers will also help facilitate success in Indian Country Extension programs. Success can be defined as programs and relationships that persistently and consistently help to improve the quality of life for extension clientele, respect cultural traditions, and provide extension faculty a chance to learn from their clientele as partners in educational endeavors.” (Tuttle, personal communication, December 21, 2007)

8. *Gerald Moore, Coordinating Extension Agent, Navajo Nation and Navajo Nation Tribal Member*

“Successful Deliverable Program Methods on Navajo Nation:

Navajo ranchers and farmers need dependable information and education to enhance their efficiency and productivity. The focus and goal of the Navajo Nation Federal Recognized Tribal Extension Program (FRTEP) is to challenge and improve certain existing production and marketing practices so that the people can realize needed benefits. The Navajo Extension Partnership (NEP) is a major method to maximize the use of resources available from the Tri-State Universities, Navajo Nation and other sources to provide educational programs to help solve relevant Agriculture/Youth & Families and related problems of the Navajo Nation, which therefore creates an effective means of program delivery.

Learning takes place most effectively through hands-on involvement, implementing concepts in a community context. Therefore, we have chosen the longer hands-on workshop and field experience format where the Extension Agent, cooperating partners, and local tradition bearers will be engaged together in the process of discovery and linkages, where the community will be interactive participants and the dialog will continue long after the agents have left.

Extension education needs to be delivered in a bi-lingual oral format. The written codification of the Navajo language began less than 100 years ago. Most fluent Navajo speakers do not read Navajo, although many do read English. It is critical to deliver the information in both languages: oral Navajo for the conceptual, philosophical, relational information and written English to reinforce the technical procedures. Just translating the English words into Navajo is not effective. Often the information is so irrelevant that it reinforces people’s dismissive attitudes about outside agencies. Presentations in the Navajo cultural, spiritual, and social context are the only reliable method for making Extension education relevant from within the community’s world view.” (G. Moore, personal communication, December 21, 2007).

9. *Terry Hunt Crowley, Project Assistant, Cooperative Extension Agent, Hualapai Reservation*

“A successful program on the Hualapai reservation requires trust from the community members, the interest of a few community members who can impact and interest others, and the intent of the agent not to be here to change the people into someone they are not, but to give them information, tools, and hands on application for ideas and programs that have real life application and not just the ideals of an institution, lofty theory, or different culture, but will in real life, where they live daily, help them improve their situation in a world that is changing around them (Crowley, personal communication, January 3, 2008)”.

Recommendations, Educational Impact, and Implications

Extension educators designing programs for American Indian reservations should carefully consider historical, cultural, and environmental characteristics as well as innovative educational methods that each tribe and reservation prefers. They should also seek input from community members throughout the programming process. Extension personnel should employ diverse delivery strategies that cater to Native American cultural learning styles, but also allow

for the freedom of extension personnel and participants to innovate and become partners in the process of learning with and from each other.

References

- Bureau of Indian Affairs. (2007). *San Carlos Apache Fact Sheet*. San Carlos, AZ: Author.
- Colorado River Indian Tribes (2005). Retrieved from Colorado River Indian Tribes on August 26, 2007 from <http://critonline.com/index.shtml>
- Etine, Lynn. (Ed.) (1998). *An EPA/USDA partnership to support community-based education: discussion paper*. Madison, WI: University of Wisconsin Cooperative Extension-Environmental Resources Center.
- Hilburn, T. (2000). *Inferring cultural learning styles: Puerto Ricans*. Paper presented at the meeting of the U.S. National Communication Association Convention, Seattle, WA.
- Hiller, J.G. (2005). Is 10% good enough? Cooperative extension work in Indian country. *Journal of Extension*, 43(6). Retrieved December 20, 2005 from <http://www.joe.org/joe/2005december/a2.shtml>
- Moore, G. (2007, December). *Strategic partnerships and relationship building on the Navajo Nation*. Paper presented at the Federally Recognized Extension Program National Conference, in Las Vegas, NV.
- Ross, A.C. (n.d.). *Brain hemispheric functions and the Native American*. Retrieved on March, 19, 2003 from <http://www.angelfire.com/falcon/naed/learninstyles.html>
- Tuttle, S.L. (2003). *Gender roles and participatory delivery strategies for selected villagers in northeastern Mexico*. Unpublished doctoral dissertation, Texas A&M University.
- U.S. Environmental Protection Agency, Region 10. (1998). *Building capacity – Educating for community action*. EPA 910-R-98-008. Retrieved December 12, 2007 from <http://www.uwex.edu/erc/pdf/EPA6.pdf>, no. 6.
- U.S. Census (2007, July 17). *Quick facts*. Retrieved from <http://www.census.gov/>
- Vicenti-Henio, V.D. & Torres, R.M. (1998). Field-dependence-independence of American Indian students enrolled in secondary agricultural education. *Journal of Agricultural Education*, 39(3), 1-10.
- Whyte, M., Karolick, D., & Taylor, M.D. (1996). Cognitive learning styles and their impact on curriculum development and instruction. (ERIC document Reproduction Services No. ED423-860).
- Wikipedia (2007, July 17). *Apache*. Retrieved from Wikipedia http://en.wikipedia.org/wiki/Apache_Tribe
- Wikipedia. (2007, July 27). *Navajo*. Retrieved from <http://en.wikipedia.org/wiki/Navajo>